

UNITED STATES DISTRICT COURT FOR THE  
DISTRICT OF NEW HAMPSHIRE

Hypertherm, Inc.

v.

Civil No. 05-cv-373-JD  
Opinion No. 2008 DNH 216

American Torch Tip Company

O R D E R

Hypertherm, Inc. moves for summary judgment on American Torch Tip Company's ("ATTC") invalidity defenses, which challenge United States Patents Nos. 5,310,988 ("988 patent"), 6,946,617 ("671 patent"), and 7,019,255 ("255 patent"). ATTC contends that material factual disputes preclude summary judgment.<sup>1</sup> The court previously excluded evidence offered by ATTC in support of its opposition to summary judgment, and Hypertherm also challenges the qualifications of ATTC's expert witness.

Standard of Review

Summary judgment is appropriate when "the pleadings, the discovery and disclosure materials on file, and any affidavits

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<sup>1</sup>ATTC also makes references to its own summary judgment motion that it anticipated filing on its defenses. For purposes of deciding Hypertherm's motion, however, the court considers only matters properly presented in support of and in opposition to that motion. See LR 7.2(b).

show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law."

Fed. R. Civ. P. 56(c). The party seeking summary judgment must first demonstrate the absence of a genuine issue of material fact in the record. See Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). A party opposing a properly supported motion for summary judgment must present competent evidence of record that shows a genuine issue for trial. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 256 (1986). All reasonable inferences and all credibility issues are resolved in favor of the nonmoving party. See id. at 255.

Proof of the affirmative defense of anticipation presents a question of fact, while "obviousness is a question of law based on underlying facts." Med. Instrumentation & Diagnostix Corp. v. Elekta AB, 344 F.3d 1205, 1222 (Fed. Cir. 2003). Because patents are presumed to be valid, "[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity." Abbott Labs. v. Sandoz, Inc., 544 F.3d 1341, 1346 (Fed. Cir. 2008) (quoting 35 U.S.C. § 282). A party challenging the validity of a patent, therefore, "has the burden of persuasion to show by clear and convincing evidence that the contrary is true." Tech. Licensing Corp. v. Videotek, Inc., 545 F.3d 1316, 1239 (Fed. Cir. 2008). "When the examiner

considered the asserted prior art and basis for the validity challenge during patent prosecution, that burden becomes particularly heavy." Impax Labs., Inc. v. Aventis Pharms., 545 F.3d 1312, 1314 (Fed. Cir. 2008).

The burden of proving invalidity "exists at every stage of the litigation." Abbott Labs., 544 F.3d at 1346. When considering a motion for summary judgment on the issue of invalidity, "the court views the record evidence through the prism of the evidentiary standard of proof that would pertain at a trial on the merits." SRAM Corp. v. AD-II Eng'g, Inc., 465 F.3d 1351, 1357 (Fed. Cir. 2006). Therefore, "a moving party seeking to have a patent held not invalid at summary judgment must show that the nonmoving party, who bears the burden of proof at trial, failed to produce clear and convincing evidence on an essential element of a defense upon which a reasonable jury could invalidate the patent." Eli Lilly & Co. v. Barr Lab. Inc., 251 F.3d 955, 962 (Fed. Cir. 2001).

#### Discussion

ATTC contends that the asserted claims of the '988 patent, claims 1, 11, and 12, are invalid because of anticipation and obviousness. ATTC also contends that the asserted claims of the '617 and '255 patents were anticipated by the '988 patent and

United States Patent No. 6,066,827 (“‘827 patent”) and were also anticipated by a combination of the ‘827 patent and the “Thermal Dynamics PCH/-200 Torch” (“M-200 Torch”). Hypertherm asserts that ATTC cannot provide clear and convincing evidence that the ‘988, ‘617, or ‘255 patents were anticipated by prior art or were obvious.

#### I. The ‘988 Patent and “Whitney Electrode”

ATTC argues that the ‘988 patent is invalid because it was anticipated by the “Whitney electrode.”<sup>2</sup> Specifically, ATTC contends that the Whitney electrode was “in public use or on sale in this country, more than one year prior to the date of the application for [the ‘988 patent].” 35 U.S.C. § 102(b). In support of its defense, ATTC relies on invoices purporting to show sales of Whitney electrodes before the cutoff date for the ‘988 patent application and on the declarations of Jeffrey Walters, ATTC’s vice president, and Daniel Walters, an ATTC employee, about sales of a Whitney electrode.<sup>3</sup>

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<sup>2</sup>The “Whitney electrode” is a reference to an ATTC drawing of an electrode, and ATTC argued that electrodes were produced from the drawing and sold.

<sup>3</sup>ATTC concedes that the Whitney electrode drawing, by itself, does not constitute prior art and does not rely on the drawing for its invalidity defenses.

Hypertherm moved to exclude the invoices and the Walters' declarations on the ground that ATTC failed to disclose them in response to Hypertherm's interrogatories. The court granted the motion on August 6, 2008. ATTC offers no other evidence to support its anticipation defense for the '988 patent. In the absence of the proffered evidence of anticipation of the '988 patent by the Whitney electrode, ATTC cannot sustain its burden to show invalidity on that basis. Therefore, Hypertherm is entitled to summary judgment on that defense.

## II. The '988 Patent and Its Background

Hypertherm moves for summary judgment on ATTC's defense that the '988 patent was obvious based on the combination of the Whitney electrode and the background section of the '988 patent itself. Hypertherm argues that because the Whitney electrode is not prior art for purposes of the obviousness defense, ATTC is left with only one prior art reference, the '988 patent background. Without citation to authority, Hypertherm asserts that obviousness requires combining elements or limitations of more than one prior art reference.

In response, ATTC contends that the background section, alone, is prior art and sufficient to render claims 11 and 12 of

the '988 patent obvious and invalid.<sup>4</sup> Hypertherm replies, stating only that the background section of the '988 patent does not "teach the step of selecting a hafnium diameter in coordination with the operating current."

ATTC is correct that in appropriate circumstances a single prior art reference can suffice to show obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1359 (Fed. Cir. 2001) (citing cases). Hypertherm's motion for summary judgment on this issue was based on the theory that a single prior art reference was insufficient to show obviousness as a matter of law. Because that assertion is wrong, summary judgment is inappropriate.<sup>5</sup>

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<sup>4</sup>ATTC also asserted that the Whitney electrode constitutes prior art. The evidence of the electrode as prior art, other than the drawing, has been excluded.

<sup>5</sup>Hypertherm's one-sentence reply, which appears to address the merits of the obviousness defense, is insufficient to support its motion on that issue. See United States v. Boskic, 545 F.3d 69, 90 n.21 (1st Cir. 2008) (arguments raised for the first time in a reply are deemed waived); Monsanto Co. v. Bayer Bioscience N.V., 514 F.3d 1229, 1240 n.16 (Fed. Cir. 2008) (same); see also Voda v. Cordis Corp., 536 F.3d 1311, 1324 (Fed. Cir. 2008) (arguments that are insufficiently developed are deemed waived).

### III. Invalidity of the '617 and '255 Patents

ATTC contends that the '617 and '255 patents were anticipated by the '988 patent and the '827 patent. ATTC also contends that the inventions of the '617 patent and the '255 patent were obvious in light of the M-200 Torch.<sup>6</sup> Hypertherm seeks summary judgment on both defenses.

#### A. Anticipation by the '988 and '827 patents.

Anticipation, under § 102(a), is a defense that the claimed invention is not new but instead was previously known. Hakim v. Cannon Avent Group, PLC, 479 F.3d 1313, 1319 (Fed. Cir. 2007).

"Anticipation is established by documentary evidence, and requires that every claim element and limitation is set forth in a single prior art reference, in the same form and order as in the claim." Abbott Labs., 544 F.3d at 1345. The requirement that the elements and limitations be set forth in the same order as in the claim means that the anticipatory reference shows "all of the limitations of the claims arranged or combined in the same

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<sup>6</sup>Although Hypertherm also seeks summary judgment on a defense of anticipation, ATTC does not mention that basis for its invalidity defense in response to the motion, and therefore, that defense is deemed to be abandoned. See Diversey Lever, Inc. v. Ecolab, Inc., 191 F.3d 1350, 1352 (Fed. Cir. 1999); cf. Pandrol USA, LP v. Airboss Ry. Prods., Inc., 320 F.3d 1354, 1364-65 (Fed. Cir. 2003).

way as recited in the claims, not merely in a particular order.” Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1370 (Fed. Cir. 2008).

Anticipation may be explicit or inherent. Abbott Labs., 544 F.3d at 1345. Any limitation of the claimed invention that is not explicit in the prior art reference “must be inherently taught and would be so understood by a person experienced in the field.” In re Omeprazole Patent Litig., 483 F.3d 1364, 1377–78 (Fed. Cir. 2007) (citing MEHL/Biophile Int’l Corp. v. Milgraum, 192 F.3d 1362, 1365 (Fed. Cir. 1999)). Inherent anticipation requires that any element which is not expressly stated in the prior art reference “would nonetheless be known to be present in the subject matter of the reference, when viewed by persons experienced in the field of the invention.” Id. at 1378. “[I]nherent disclosure is appropriate only when the reference discloses prior art that must necessarily include the unstated limitation.” Id. (internal quotation marks omitted).

The ‘255 and ‘617 patents are related; the ‘255 patent issued from a continuation of the application that became the ‘617 patent. They share the same specification and drawings. The ‘827 patent is listed as a prior art reference for both the ‘255 and ‘617 patents. Both patents “are directed to a method and apparatus for alignment of components of a plasma arc torch.”



Pl. Mem. ¶ 16. All three of the asserted claims are directed to an electrode with “a hollow elongated body having an open end and a closed end.” In addition, they share the element of “a surface located on an interior portion of the elongated body [that is] adapted to mate and align with a coolant tube along a direction of a longitudinal axis of the coolant tube, wherein the coolant tube is not rigidly attachable to a torch body.” Claim 12, ‘617 patent; see also Claims 7 & 25, ‘255 patent.

ATTC asserts that because the court construed the asserted claims not to claim electrodes in combination with coolant tubes, the element pertaining to the coolant tube is not part of the asserted claims. ATTC is mistaken. In the order on claim construction, the court explained that “the phrase describing the coolant tube is necessary to provide a context for that part of the invention directed to the electrode’s surface which is ‘adapted to mate and align with a coolant tube.’” Order, Jan. 29, 2008, dkt. 152, at 10. As such, the “phrase does not claim the coolant tube in combination with the electrode but limits the claimed electrode to one that is adapted to align and mate with the described coolant tube.” Id. The coolant tube is described in the asserted claims as “not rigidly attachable to a torch body.”

Relying on its interpretation of claim construction, which excludes the context of the coolant tube, ATTC does not address that limitation for purposes of showing anticipation. Because anticipation requires proof that the prior art anticipated every limitation of the asserted claim and ATTC failed to show any evidence of the coolant tube context limitation, ATTC has not sufficiently sustained its burden of proof to avoid summary judgment. Even if ATTC were correct that the coolant tube context limitation was excluded from the claims through claim construction, it has not shown anticipation as to the remaining claim elements.

1. Explicit Anticipation

ATTC contends that the '988 patent and the '827 patent anticipate claim 12 of the '617 patent and claims 7 and 25 of the '255 patent. ATTC concedes, however, that the specifications of the '988 and '827 patents "do not teach an electrode that mates and aligns with a coolant tube." Instead, ATTC asserts that drawings, specifically Figure 1 of the '827 patent and Figure 2 of the '988 patent, disclose that missing element.

ATTC relies on a rule, provided in old cases, that an invention for purposes of anticipation can be shown by patent drawings alone, in appropriate circumstances. See In re Mraz,

455 F.2d 1069, 1072 (C.C.P.A. 1972); In re Watts, 58 F.2d 841, 841 (C.C.P.A. 1932). When drawings do not show that a particular configuration had the same purpose as in the challenged patent, however, drawings are not anticipatory. Id. The Federal Circuit has not addressed, recently, reliance on a drawing alone to show anticipation. In addition, reliance on a drawing would appear to be more difficult in light of the requirement that to be anticipatory, the prior art reference must disclose all elements of the claim "arranged as in the claim," meaning "the limitations of the claims [must be] arranged or combined in the same way as recited in the claims . . . ." Net MoneyIN, Inc., 545 F.3d at 1370.

Assuming that explicit anticipation could be demonstrated from a drawing, ATTC has not shown that the cited drawings, Figure 2 of the '988 patent and Figure 1 of the '827 patent, show a surface that is adapted to mate and align with a coolant tube. Although ATTC states that Figure 10 of the '617 patent and Figure 2 of the '988 patent show "identical" surfaces, the highlighted surfaces are not identical. Nothing in the '988 drawing indicates that the purpose of the highlighted surface is to mate and align with a coolant tube, the element claimed in the '617 patent.

ATTC contends that Figure 1 of the '827 patent "discloses a surface that may is [sic] 'adapted to mate and align with a coolant tube' and therefore the '827 patent is anticipatory prior art."<sup>7</sup> ATTC Mem. ¶ 22. ATTC relies on the opinion of its expert, Dr. Sprague, to show anticipation by Figure 1. Although Dr. Sprague explains that the drawing shows a surface in a particular shape that could mate and align with a coolant tube, he does not suggest that the surface shown in the drawing had the same purpose as the '617 and '255 patent claims. In addition, with respect to the element that the electrode had a hollow elongated body with an open end and a closed end, Dr. Sprague stated that "it is inherent that the rear (upper) end of the electrode must be open." Sprague Rep. App. H at 24. Therefore, even based on Dr. Sprague's opinion, the '827 patent drawing does not disclose explicitly each element of the asserted claims.

## 2. Inherent Anticipation

Alternatively, ATTC argues that the asserted claims of the '255 and '617 patents are inherently anticipated by the '988 and '827 patents. Hypertherm challenges ATTC's evidence, and in

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<sup>7</sup>Because the '827 patent was cited in the '255 and '617 patents as prior art, ATTC bears a particularly heavy burden to show anticipation. Impax Labs., Inc. v. Aventis Pharms., Inc., 545 F.3d 1312, 1314 (Fed. Cir. 2008).

particular, argues that ATTC's expert, Dr. Sprague, is not "one skilled in the art," making his opinions on anticipation unpersuasive. Although ATTC asserts that it can oppose summary judgment on inherent anticipation without evidence from "one skilled in the art," ATTC primarily relies on and supports Dr. Sprague's opinions.

As a preliminary matter, to be clear and convincing, "testimony concerning anticipation must be testimony from one skilled in the art and must identify each claim element, state the witnesses' interpretation of the claim element, and explain in detail how each claim element is disclosed in the prior art." Schumer v. Lab. Computer Sys., Inc., 308 F.3d 1304, 1315 (Fed. Cir. 2002). In addition, conclusory statements and mere denials are insufficient to meet the standard. Id. Expert testimony is unnecessary on issues of patent validity, for purposes of summary judgment, only in rare cases where "the design of the patent is not particularly sophisticated, nor is it markedly different from the prior art." Harvestall Indus., Inc. v. Hochstetler, 656 F.2d 1232, 1235 (7th Cir. 1981).

This is not a rare case where the subject matter of the patents is sufficiently simple to allow the court to compare elements of the claims without expert opinion. Dr. Sprague's opinions on anticipation of the '255 and '617 patents by the '988

and '827 patents are presented in charts, comparing the elements of the asserted patents with parts of drawings of the prior art. Even if he were determined to be one skilled in the art and if his opinions were credited as sufficiently developed to avoid the bar of conclusory statements and denials, he failed to address several limitations in the asserted patents, citing claim construction. As is discussed above, claim construction did not eliminate any of the claim limitations stated in the asserted claims. Therefore, ATTC has not shown that a material factual dispute exists as to inherent anticipation.

### 3. Meaning of "Adapted To"

The asserted patent claims, as recited above, include a limitation of "a surface . . . adapted to mate and align with a coolant tube . . . ." Although ATTC did not raise the issue for purposes of claim construction, it now argues that the proper meaning of the term "adapted to," as used in the asserted patent claims, is "capable of." In reliance on that interpretation, ATTC argues that the '988 and '827 patents anticipated the '255 and '617 patents because their designs included a surface that was capable of mating and aligning with the coolant tube. Even if ATTC's new construction were persuasive, as is discussed

above, ATTC lacks evidence to show anticipation of every element of the asserted claims.

#### 4. Conclusion

Given the gaps in the evidence to support ATTC's anticipation defenses, ATTC cannot show that every element of the asserted claims was anticipated by the '988 or the '827 patents. See Abbott Labs., 544 F.3d at 1345. Therefore, Hypertherm is entitled to summary judgment on ATTC's anticipation defenses to the validity of the '255 and '617 patents.

#### B. Obviousness Based on the M-200 Torch and the '827 Patent

A patent is invalid if its subject matter would have been obvious at the time of the invention to one having ordinary skill in the art. 35 U.S.C. § 103(a); Net MoneyIN, Inc., 545 F.3d at 1371. A determination of obviousness is a legal conclusion based on underlying factual findings: "1) the scope and content of the prior art, 2) the level of ordinary skill in the art, 3) the differences between the claimed invention and the prior art, and 4) evidence of secondary factors, also known as objective indicia of non-obviousness." Eisai Co. Ltd. v. Dr. Reddy's Labs., Ltd., 533 F.3d 1353, 1356 (Fed. Cir. 2008). An obviousness analysis cannot be based on hindsight but instead must focus on the broad

scope of teachings, suggestions, or motivations, which may be found in written references or in "the knowledge and creativity of skilled artisans," that existed before the time of the invention. Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc., 520 F.3d 1358, 1365 (Fed. Cir. 2008) (applying the changes in the obviousness analysis from KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007)).

ATTC relies on Dr. Sprague's opinions to show that the combination of the '827 patent and the M-200 Torch rendered the asserted claims of the '255 and '617 patents obvious. Dr. Sprague's opinions are expressed in the form of a comparison chart, filed as Appendix K to his rebuttal expert report. Dr. Sprague contends that the '827 patent provides the elements of an electrode for a plasma arc torch, a hollow elongated body with an open end and a closed end, and a surface "adapted to mate and align with a coolant tube." He states that the M-200 Torch and its coolant tube were on sale prior to April 11, 2002, and that the coolant tube was not "rigidly attachable to a torch body." Dr. Sprague concludes that the coolant tube used in the M-200 Torch "would have suggested to one of ordinary skill in the art to use the non-rigidly attachable coolant tube in order to provide easy to remove, for repair or replacement, components in the plasma arc torch." Rebuttal Rep. App. K.



Hypertherm contends that expert witness evidence is required to show obviousness. It further contends that Dr. Sprague lacks an ordinary level of skill in the field of plasma arc torches because he admittedly has no experience in the design or manufacture of torches outside of the current litigation. For that reason, Hyperterm asserts that Dr. Sprague's opinions are not evidence of obviousness, leaving ATTC without evidence to support its defense. ATTC defends Dr. Sprague and argues that his "well reasoned opinion" adequately supports the defense of obviousness.

At the heart of the dispute is the parties' disagreement about the relevant art. Hypertherm contends that the relevant art for purposes of the patents at issue in this case is plasma arc torches. Dr. Smith Reed, Hypertherm's expert witness, states:

A person of ordinary skill in the art of plasma arc torches and related technology, including plasma torch consumable components, would in my opinion, be a person with direct and substantially responsible experience with plasma arc cutting technology or plasma arc cutting torches and related equipment, along with an educational background to enable an understanding of the basic sciences involved, including the basic physics, chemistry and physical dynamics involved.

Hypertherm Mem. (dkt. 176), Ex. 12, ¶ 3. ATTC and Dr. Sprague, however, argue that the relevant field of art is more general, comprising "mechanisms and mechanical design and additionally, in

the instance of the '988 patent, basic electrical theory."

Sprague Supp. Rep. at 3. Based on that view, Dr. Sprague provides two different definitions of one skilled in the art:

(1) "an individual with at least a bachelor of science in engineering or technology degree and a minimum of two [] years of relevant experience or equivalent in mechanical design," or, alternatively, (2) "an individual with at least seven [] years experience in designing or manufacturing components for plasma arc torches." Id.

ATTC does not explain what Dr. Sprague means by "relevant experience or equivalent in mechanical design." If that phrase refers to experience in the field of plasma arc torches, then the parties' definitions would have substantial similarities, which would appear to preclude Dr. Sprague as one skilled in the art. If that phrase means only experience in any mechanical design, they do not agree, and Dr. Sprague's qualifications could suffice. As presented, a material factual dispute exists about the necessary level of ordinary skill in the art, which is the required factual predicate to determine obviousness that Hypertherm challenged in its motion. Therefore, the issue cannot be resolved for summary judgment based on the present record.

Conclusion

For the foregoing reasons, the plaintiff's motion for summary judgment on invalidity defenses (document no. 175) is granted in part and denied in part. Summary judgment is granted in the plaintiff's favor (1) on the defendant's affirmative defense that the '988 patent was anticipated by sales of the Whitney electrode and (2) on the defendant's affirmative defense that the '255 and '617 patents were anticipated by the '988 and '827 patents. The motion is otherwise denied.

Although Hypertherm requested a hearing on the motion, it failed to state reasons why oral argument would assist the court in deciding the motion. LR 7.1(d). Therefore, the request is denied.

SO ORDERED.

  
Joseph A. DiClerico, Jr.  
United States District Judge

December 29, 2008

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